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NATIONAL FORESTS

Information on the Process and Data Used to Revise the Chugach Forest Plan



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United States General Accounting Office
Washington, DC 20548

July 26, 2002

The Honorable Frank H. Murkowski
Ranking Minority Member
Committee on Energy and Natural Resources
United States Senate

The Honorable Don Young
House of Representatives

Located on the south-central Alaska coast, the Chugach National Forest (Chugach) is the second largest of the 155 forests in the National Forest System and stretches across an immensely varied and scenic area about the size of New Jersey. The Forest Service is required by law to develop a comprehensive, long-range management plan for each national forest. These plans, commonly called forest plans, must provide for multiple, and sometimes competing, public uses in each forest, such as fishing, mining, timbering, and preserving wildlife. The plans must be revised at least every 15 years. Forest plans reflect difficult and often controversial trade-offs among competing forest uses. In developing a forest plan, the Forest Service analyzes data on various potential uses of the forest's lands and resources in order to determine the most appropriate combination of the potential uses. Forest Service officials began revising the Chugach forest plan in 1997. The agency issued a draft revised plan for public comment in September 2000 and a final revised plan in May 2002.

In this report, we discuss the (1) process the Forest Service used to revise the Chugach forest plan, (2) actions it took to solicit and respond to key public concerns about the plan's revision, and (3) data and analyses it used to develop the draft revised plan and whether any limitations in these data and analyses were appropriately disclosed in the final plan. In addition, in appendix I, we discuss differing views on whether the Forest Service has the legal authority to recommend lands within the Chugach for wilderness designation as part of its forest plan revision process. Some interested parties believe that the Alaska National Interest Lands Conservation Act (ANILCA) prohibits the Forest Service from making any such recommendations. On the other hand, the Forest Service maintains that it may do so without violating the act.

Results in Brief

The Forest Service revised the Chugach National Forest Plan in accordance with the agency's planning regulations. These regulations

required that the Forest Service solicit and respond to public concerns in (1) identifying issues to be considered in revising the plan, (2) developing alternative plans for evaluation, (3) selecting a draft preferred alternative plan, and (4) adopting a final revised plan. Beginning in July 1997, the agency worked with the public to develop 30 alternative plans, each of which proposed a different combination of recreation, wildlife, mining, timber, subsistence, wilderness, and other uses of the Chugach. The Forest Service then combined alternative plans having similar features to reduce the number down to six. The agency then performed a detailed comparative analysis of these six alternative plans and a preferred agency alternative that the Forest Service developed based on the combined features of the six alternative plans. In September 2000, the Forest Service issued for public comment the results of its comparative analysis together with its draft preferred alternative. In May 2002, the Forest Service issued a final revised plan based on its draft preferred alternative as modified by the public comments it received.

Forest Service officials actively solicited key public concerns about revising the Chugach forest plan by distributing frequent newsletters; maintaining a Web site to allow the public access to key documents; and holding over 100 public meetings on the plan, including ones to solicit potential alternative revisions to the plan and, later, discuss concerns about its draft preferred alternative plan. As a result, over the entire planning period, the agency received more than 36,000 comments from the public. These comments generally addressed concerns about the trade-offs among competing uses of the Chugach, such as conflicts between motorized and non-motorized recreation or habitat protection. Most suggested that the revised plan should place emphasis on preserving, rather than developing, the forest's lands and resources. Most comments also suggested that the revised plan include a recommendation that the Congress designate additional portions of the forest as wilderness areas. Interested and affected parties told us that, while they would have preferred that the agency's draft revised plan had emphasized more of the forest uses that they preferred, they believed that Forest Service officials included important elements of their views.

In developing its draft revised plan, issued in September 2000, the Forest Service obtained and analyzed a vast amount of data on various potential uses of the lands and resources within the Chugach. These data and analyses focused largely on timber harvesting, mineral mining, commercial fishing, recreation and tourism, forest vegetation, and fish and wildlife habitats, and were used to guide various decisions on difficult and sometimes controversial trade-offs among competing forest uses. Our

review showed that the data and analyses that the Forest Service used to make some decisions had limitations that were not disclosed in the draft revised plan. These decisions involved (1) possible commercial harvesting of timber, (2) potential mining for minerals, and (3) protection of a potentially at-risk brown bear population on the Kenai Peninsula of the Chugach. For example, in making decisions on uses of the Kenai Peninsula, the Forest Service did not have sufficient data to determine whether a stable brown bear population existed in the peninsula and the measures necessary to ensure the population's viability in the presence of human uses of the peninsula. The draft plan did not disclose these data limitations or any actions being considered by the Forest Service to fill data gaps and make appropriate adjustments to the plan. However, our review of the final revised forest plan, issued in May 2002, and discussions with agency officials, indicate that the agency has addressed our concerns about data limitations and how the Forest Service plans to fill data gaps and consider, where appropriate, amending the plan.

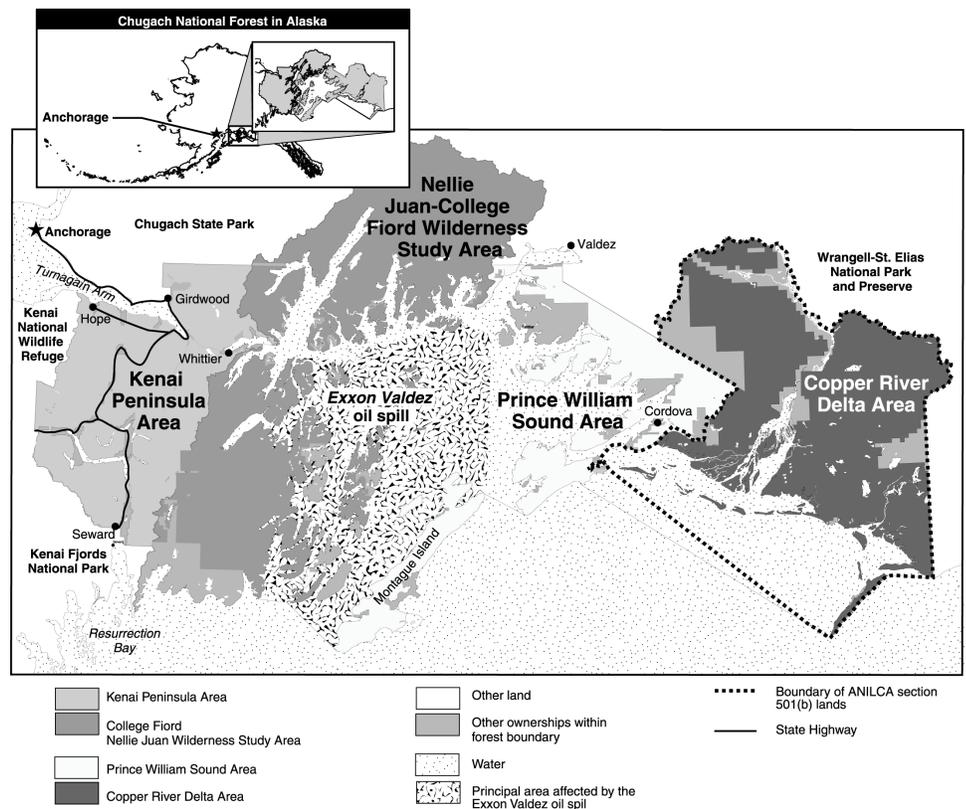
Background

The Chugach National Forest was established in 1907 and is the second largest forest in the National Forest System. The forest extends for over 200 miles along the Alaska coastline southeast of Anchorage, encompasses over 5 million acres, and is bordered by two national parks, a state park, and a national wildlife refuge. A forest supervisor located in Anchorage manages the Chugach, and a regional forester located in Juneau has overall responsibility for the Chugach and the other national forest in Alaska.

The Chugach Comprises Four Major Geographic Areas

As shown in figure 1, the Chugach covers four major areas, each of which presents agency planners and the public with significantly different issues.

Figure 1: The Four Major Areas of the Chugach National Forest



Source: Adapted from Forest Service data.

As shown in figure 1, the westernmost major area of the Chugach is the Kenai Peninsula area. This area—the nearest to Alaska’s largest urban population center, Anchorage—is a growing recreation area, especially for motorized recreation such as snowmobiles and all-terrain vehicles. It also has a significant population of Alaska Brown Bears that the State of Alaska has designated as being of special concern because of vulnerability to human impacts.

The Nellie Juan-College Fiord Wilderness Study Area is a greatly glaciated, remote area lacking roads. The Forest Service had recommended that the Congress designate much of this area as wilderness where human

activities would be significantly limited. Pending this designation, or its rejection, it is being managed as such.

The Prince William Sound area contains large offshore islands, such as Montague Island, where timber has been harvested in the past. The city of Valdez, located on the Sound, is the southern terminus of the Trans-Alaska Pipeline. In 1989, the oil tanker *Exxon Valdez* spilled millions of gallons of oil into the sound, significantly damaging marine and shore animals and their habitat and requiring a multiyear, multibillion-dollar federal clean-up effort.

The Copper River Delta area, located at the forest's eastern edge, is dominated by one of North America's most significant rivers for salmon production. The city of Cordova contains major fish-processing facilities. At around 2 million acres, the Delta is the most extensive wetlands complex on the Pacific coast of North America and is a highly productive ecosystem for shorebirds, waterfowl, and fish. Portions of the Delta may contain commercial oil and gas.

The Original Chugach Forest Plan

The original Chugach forest plan was adopted in July 1984, but several environmental groups appealed the plan through the Forest Service's appeal procedures, arguing that the plan was based on an analysis that had been done at too large a geographical scale to identify many actual effects in specific areas on the ground. As a result, they contended, the plan allowed too much development and was likely to damage fish and wildlife resources. The Forest Service and the appellants negotiated a settlement agreement in 1985. In January 1986, Forest Service officials amended the 1984 plan to incorporate the requirements of the agreement.

Among other things, the 1986 amendment limited timber sales on the Chugach to an average of about 8 million board feet per year over the next decade, or about half the originally approved plan's level of over 16 million board feet.¹ The amendment also committed the Chugach to conduct further studies at smaller geographic scales, which might result in additional amendments to the plan.

¹ A "board foot" is a unit of measurement of timber equaling the amount of wood contained in a finished board 1 inch thick, 12 inches long, and 12 inches wide.

Agency Regulations Prescribed the Process Used to Revise the Chugach Forest Plan

The National Forest Management Act (NFMA) of 1976 requires the Forest Service to, among other things, (1) develop a plan to manage the lands and resources of each national forest in coordination with the land management planning processes of other federal agencies, states, and localities and (2) revise each plan at least every 15 years. The Forest Service's planning regulations in effect during the Chugach revision process established detailed procedures for developing a forest plan. These procedures required the agency to develop several alternatives for managing a forest and to make these alternatives available for public comment.² Furthermore, the regulations required the agency to develop an environmental impact statement in accordance with the National Environmental Policy Act of 1969 (NEPA) to accompany each forest plan. An environmental impact statement assesses the effects of a major federal action that may significantly affect the quality of the human environment.

In accordance with the process specified in the agency's then-existing planning regulations, the Chugach Forest Supervisor appointed an interdisciplinary team that began revising the forest plan in April 1997. Agency regulations encouraged the public to participate throughout the planning process in order to (1) broaden the agency's information base; (2) ensure that the agency understands the needs, concerns, and values of the public; (3) inform the public of the agency's planning activities; and (4) provide the public with an understanding of the agency's programs and proposed actions.

The interdisciplinary team, working with the public, developed 30 alternative plans. Each alternative proposed a different combination of recreation, wildlife, mining, timber, subsistence, wilderness, and other uses in the Chugach. The team then combined similar alternatives to reduce the number of alternatives down to six. It then conducted a detailed comparative analysis of these six alternatives together with a required "no action" (i.e., no change) alternative, and a preferred agency alternative developed by the Forest Supervisor that combined features from all six alternative plans. In September 2000, the Supervisor of the Chugach National Forest issued for public comment the agency's draft preferred alternative together with the detailed comparative analysis of all these alternatives.

² See app. I of U.S. General Accounting Office, *Forest Service Decision-Making: A Framework for Improving Performance*, GAO/RCED-97-71, Washington, D.C.: April 29, 1997, for a more detailed discussion of the agency's planning process.

Forest Service officials reviewed public comments received on the preferred alternative and, in response to these comments as well as further study, made changes to its preferred alternative for the Forest Supervisor's approval. Upon approval, the Forest Supervisor forwarded the proposed final plan and an accompanying environmental impact statement to the Regional Forester for approval. In May 2002, the Regional Forester approved the final revised plan.

According to Forest Service officials, the vast majority of forest plans, since the first one adopted in 1982, have been administratively appealed, and many have subsequently have been litigated in federal courts.

The Forest Service Took Extensive Actions to Solicit and Respond to Public Concerns

The Forest Service undertook sustained actions to solicit and respond to key public concerns about the revision to the Chugach forest plan. These actions included (1) distributing frequent newsletters on the planning process and its progress, (2) maintaining a Web site on the Internet with links to key planning documents and making available compact discs containing these documents, and (3) holding over 100 meetings in which the public was invited to define key issues and formulate alternatives. These extensive actions went beyond those required under the agency's planning process and those used in previous forest planning exercises. Also unique to this plan was the intensive work of the Chugach's interdisciplinary team in what the agency termed a "collaborative learning process" to help members of the public fashion their own varied alternatives.

As a result of this outreach, the agency received thousands of comments on its draft preferred alternative. These comments generally reflected differing viewpoints about desirable trade-offs among competing uses of the Chugach. For example, many interested parties expressed concern that too much land was being allocated for motorized versus nonmotorized recreation, while others believed that too much land was being proposed for wilderness designations versus more intensive uses. Forest Service officials told us that, in general, nearly all parties agreed that they did not want the Chugach to change from its generally undisturbed character and existing usages, but that they disagreed over what posed the biggest threat to existing conditions and uses. Some thought the greatest threat came from increased development while others felt it came from increased restrictions on existing uses. Most suggested that the revised plan should place emphasis on preserving, rather than developing, the forest's lands and resources.

To respond to these concerns, the agency (1) obtained additional information, (2) held additional meetings with the public, and (3) considered specific changes to its preferred alternative. Throughout the planning process all parties were provided numerous opportunities to place on the record their concerns about forest issues. Some members of the public told us that they felt there were times during the planning process that some Forest Service staff inappropriately expressed personal views on issues but that, during the long planning process, those staff transferred to other agency assignments and their replacements did not seem to share those views. Although some interested and affected parties still had concerns about the results of the revision process and the agency's draft preferred alternative, virtually all parties told us they believed the Forest Service had included important elements of their views in the draft revised plan.

Some Decisions Contained in the Agency's Draft Plan Were Based on Limited Data, but These Limitations Were Addressed in the Final Plan

In developing the draft revised plan, the Forest Service obtained and analyzed a vast amount of data on timber harvesting, mineral mining, commercial fishing, recreation and tourism, forest vegetation, and fish and wildlife habitats. These data and analyses were used to make various decisions on difficult and sometimes controversial trade-offs among competing forest uses. In three areas, we found that the data and analyses used for making some decisions had limitations that were not disclosed in the draft revised plan. These decisions involved (1) possible commercial harvesting of timber, (2) potential mining for minerals, and (3) protection of a potentially at-risk brown bear population.

- **Possible commercial harvesting of timber.** The Forest Service did not calculate the maximum quantity of timber that might be sold over a decade from the area of suitable land covered by the forest plan. The agency did not perform such an analysis because officials believed (1) they were not legally required to do so, (2) commercial timber harvesting was not economically feasible in the Chugach because of the generally low quality of timber in the forest, low market prices, and the lack of nearby large markets, and (3) gathering and analyzing the data needed to calculate the maximum quantity was not worth the time, expense, and difficulty of doing so. However, the agency's draft revision did not discuss the limitations of the analysis on which this decision was based.
- **Potential mining for minerals.** In order to make decisions about areas in the Chugach where mining would be permitted, the Forest Service analyzed a substantial body of data that it had gathered on past mining activities in the forest. However, such past activities were conducted in only a small portion of the forest, typically in areas accessible from

existing forest roads. Forest Service officials told us that the Department of the Interior had estimated that it would cost approximately \$8 million to survey the entire forest to determine the full potential for mineral mining activities. They believed that such costs were not warranted in view of other priorities of the forest competing for limited funds and that they were justified in basing decisions on the information that they had gathered on the past mining activities. However, the agency's draft revised plan did not discuss the limitations of the analysis on which it based its decisions on mining activities within the forest.

- **Protection of a potentially at-risk brown bear population.** An interagency study on the size and trends of the brown bear population on the Kenai Peninsula of the Chugach, which may be at risk from human activities, was produced while the Forest Service was reviewing public comments on its draft-revised plan. This study, which the Forest Service participated in, reported that data are not available to determine whether a stable brown bear population currently exists in the peninsula and whether additional measures are needed to maintain the population's viability in the presence of all types of human uses of the peninsula. The study calls for additional research to help answer these questions. The Forest Service's draft revised plan did not disclose the findings of this interagency study nor did it identify steps that the agency would take to obtain additional data. Neither had the agency included reference to it in changes to the draft made during the comment period on it while our review was being conducted. Should evidence suggesting serious problems with the population trends of the Kenai brown bear become available during the time frame covered by the Chugach's revised forest plan, it may be necessary to make changes to the plan that could unexpectedly alter planned human uses in some areas of the forest.

In March 2002, we met with the Forest Supervisor and other Forest Service officials and told them that our review indicated that limitations existed in some of the agency's data and analyses and that the draft plan neither disclosed such limitations nor identified planned actions to address them. In May 2002, the agency issued a final revised Chugach forest plan. Our review of the final plan and discussions with agency officials indicate that the agency has addressed our concerns by (1) agreeing to augment their analysis of data regarding timber harvesting in the forest, (2) explaining the limitations of data on potential mineral deposits in the forest and the agency's decision to not incur costs associated with performing a comprehensive survey to determine the potential for mining minerals throughout the forest, and (3) referring to the findings of the interagency brown bear study and the agency's planned monitoring of the brown bear population. In addressing these concerns,

the agency also completed an internal science consistency evaluation considering data and limitations.

Agency Comments

We provided a draft of this report to the Supervisor of the Chugach National Forest for review and comment. He generally concurred with our findings and made certain technical suggestions that we incorporated as appropriate.

We conducted our work from August 2001 through July 2002 in accordance with generally accepted government auditing standards. We visited the Chugach National Forest and obtained the views of and related documentation from Forest Service, state, industry, and environmental group officials located in Alaska and Forest Service headquarters officials located in Washington, D.C. We are sending copies of this report to the Secretary of Agriculture and the Chief of the Forest Service. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

If you have any questions about this report, please call me at 202-512-3841. Key contributors to this report were Charles S. Cotton, Richard P. Johnson, Chester M. Joy, and Edward A. Kratzer.



Barry T. Hill
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and Environment

Appendix I: Forest Service Authority to Study or Recommend for Designation as Wilderness Chugach National Forest Lands

In 1980, after several years of consideration, the Congress passed the Alaska National Interest Lands Conservation Act (ANILCA), which, among other things, addressed ongoing land disputes between the federal government and the state. Specifically, the act set aside millions of acres in “conservation system units,” a statutory term including national parks, wildlife refuges, wilderness areas, and wild and scenic rivers. The law also rescinded numerous public land withdrawals within Alaska by the President and Interior that had occurred in the 1970s. Section 1326(a) of ANILCA limited future executive branch land withdrawals of more than 5,000 acres in Alaska.

In addition, section 1326(b) of ANILCA prohibited “further studies of federal lands for the single purpose of considering the establishment of a conservation system unit” or other similar units unless authorized by ANILCA or future legislation. The Forest Service and other interested parties hold differing views on how this section should be interpreted with regard to the Forest Service’s legal authority to recommend to the Congress that portions of the Chugach be managed as wilderness areas. Some supporters of greater development maintain that section 1326 (b) prohibits the Forest Service from making any such recommendations outside the existing Wilderness Study Area in the forest. On the other hand, the Forest Service maintains that it may do so without violating ANILCA, as long as the recommendation is not based upon a study performed for the single purpose of designating an area as wilderness. Stakeholders also disagree over the proper interpretation of Section 501(b) of ANILCA. Some supporters of greater development believe that this section requires that the Copper River Delta within the Chugach be managed for fish and wildlife conservation and prohibits the Forest Service from recommending to the Congress that any portion of delta be designated as a wilderness area. The Forest Service believes that the delta can contain wilderness designations so long as the applicable management direction for the delta provides for the primacy of fish and wildlife conservation.

Only one court has examined section 1326(b) of ANILCA in any detail. In a recently completed forest plan for Tongass National Forest in southeast Alaska, the Forest Service recommended certain rivers for designation under the Wild and Scenic Rivers Act. Opponents of these recommendations challenged the Forest Service’s decision in *Sierra Club v. Lyons*, contending that ANILCA § 1326(b) prohibited the Forest Service’s action. In an unpublished opinion, the court in a brief discussion rejected the argument. The court stated that

A review of the record before the Court reveals that the Forest Service did not study rivers in Alaska for the single purpose of considering the establishment of a conservation system unit. Rather the Forest Service conducted a study of the rivers for their eligibility as wild and scenic for the purposes of a general land management plan. Thus, no ANILCA violation occurred. *Sierra Club v. Lyons*, J00-0009 CV (JKS), Slip. Op. at 31 (March 30, 2001) (citations omitted).

The court in *Lyons* also held that the Forest Service had violated its planning regulations by failing to evaluate roadless areas within the Tongass to determine whether any of these should be recommended for inclusion in the National Wilderness Preservation System. The court ordered the Forest Service to carry out such an evaluation, which is currently being performed.

Supporters of greater development have asserted that section 1326(b) of ANILCA prohibits the Forest Service from studying national forest lands in Alaska for the purpose of considering additions to the Wild and Scenic River and Wilderness systems. Although the court in *Lyons* rejected this argument with respect to Wild and Scenic Rivers, these stakeholders contend that the government did not adequately explain the provisions of ANILCA to the court, thus leading the court to an erroneous conclusion. The Record of Decision states that the revised forest plan does not violate section 1326(b) because the plan is a general land management plan rather than a single purpose study.

Stakeholders also disagree over the proper management of the Copper River Delta. The Copper River Delta is a highly productive ecosystem that may contain commercial oil and gas deposits. A House version of ANILCA would have designated the area as a National Wildlife Refuge. As ultimately enacted, section 501(b) retained the Copper River Delta under the Forest Service's jurisdiction, but provided that the primary purpose of the area was to further fish and wildlife conservation.

Some stakeholders have asserted that section 501(b) of ANILCA prohibits the Forest Service from recommending any areas within the Copper River Delta for designation as wilderness because such a designation would prohibit the Forest Service from undertaking certain actions to conserve fish and wildlife. These stakeholders have also asserted that proposed wilderness designation would hinder future oil and gas development near the town of Katalla. However, others who support preserving the forest's lands and resources argued that some of the land management prescriptions in the draft plan would violate section 501(b) by failing to prohibit activities that conflict with the area's purpose of conserving fish

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and wildlife, such as mining, road construction, and off-road vehicle use, among others.

The revised plan does not recommend any areas for wilderness designation within the Copper River Delta. The Record of Decision states that each of the three management prescriptions applied to the Delta have fish and wildlife conservation as their primary goal. According to the ROD, each prescription provides for a different mix of multiple use activities consistent with the conservation of fish and wildlife and their habitat.

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